

## Network Integration Evaluations

**BG John Charlton, Commanding General, Brigade Modernization Command** 

**20 February 2014** 

Army-Industry Exchange Corner



## NIE14.1 Summary



#### Network Insights

- Network Management & Complexity the network is too complicated
- Air-Ground Integration connecting dismounted forces to aviation assets within the network is challenging
- Dismounted Force Connectivity when out of range from gateway node, dismounted force is isolated from higher/adjacent units' network

#### Other Insights

- Mission Command Complexity & Compatibility MC systems are not integrated with mobile solutions; MC system interoperability is unreliable and difficult – lack of horizontal and vertical integration
- Command Posts Main CPs are not expeditionary (scalable, agile, efficient, portable); BN/BDE CDRs expressed need for MCOTM TAC CPs
- JIIM Joint Force integration is limited; Multinational / Interagency face considerable interoperability challenges
- Training Leverage the NIE operational environment for division training;
  Modernization and unit readiness are not mutually exclusive



### NIE/Bold Quest 14.2 Concept



#### **NIE Key Objectives**

- Assess the network's ability to provide timely situational awareness, while conducting Joint Force entry operations.
- Accelerate integration of MC on the move into Aviation and Armored Platforms
- Simplify and protect the Network
- Evaluate solutions to enhance the command post
- Improve Home Station capabilities
- Opportunities to leverage:
  - JIIM Interoperability
  - Training Opportunities- DIV HQ
  - Joint Training Experiences

Network Integration Evaluation

#### **BQ Key Objectives**

- Joint/Coalition Fires
- Digitally Aided Close Air Spt
- Friendly Force Tracking
- Combat ID Server
- Joint Fire C2 Interoperability
- Assess Joint Mission Threads to identify gaps:
  - Joint Fires
  - · Integrated Air Picture

Interoperability & Integration Opportunities

**Bold Quest** 

Joint Training Exercise

#### **JTE Key Objectives**

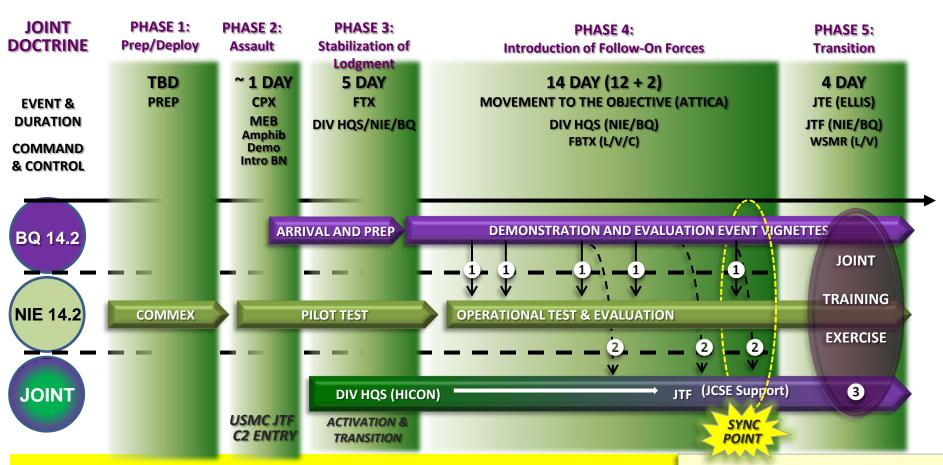
- Train 1<sup>st</sup> AD to perform as JTF (working w/ARCENT)
- Assess overall joint/multi-national interoperability issues
- Train JTF on Mission Partner Environment

NIE/Bold Quest Teaming offers opportunities to integrate Joint Network capabilities while efficiently providing a significant Joint Training opportunity.



## BQ | NIE | JTE 14.2 Event Flow





- 1 'Touch Points' are where BQ Vignettes can interact with NIE
- 2 BQ Vignettes may support JTF transition and preparatory activities
- 3 JTF Exercise will incorporate NIE events and BQ Vignettes (focus Joint OBJ)

#### **Proposed JOINT MISSION THREADS:**

- Joint Fires
- Joint Integrated Air Picture
- Joint Personnel Recovery
- Joint C2/Mission Command



# Improving our relationship with Industry



- Industry Feedback Day at the end of NIEs
- Active engagements with industry partners
- Better follow-through and involvement on potential capabilities



# Enabling an Expeditionary Army – a 5-year DOTMLPF Roadmap for Effective Integration

5 Year End-state: Enabling the expeditionary Army for decisive action in 2025 and beyond

reduced footprint underway

regional missions

√ Accelerated capabilities to support

Lines of Effort

**Capabilities** 

2014

2015

2016

2017

2018...

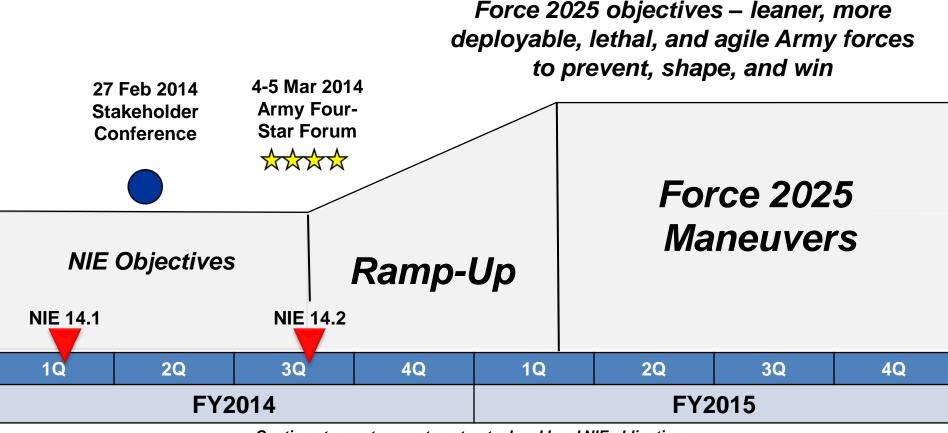
Validate NCR ✓ Integrated and protected network in all Validate Network Validate Capability Sets formations to support decisive action Baseline **IBCT SBCT** I/SBCT **ABCT AVN** ✓ CS validated in NIE before fielding ✓ Converge all networks to WIN-T Simplify UTR, Transport Convergence, NETOPS Convergence **Nett Warrior JBC-P INTEL Apps & Sustain & Protect Medical Apps** ✓ Single COE across the Army ✓ CP CE and Mobile CE validated & Fires Apps **Maneuver Apps Apps** ✓ Standardized Mobile CE & CP CE Mission interface **Develop Aerial Tier & Air Ground Integration** √ Mobile apps interoperable w/ CP apps Command ✓ Defined requirements for cloud **CPCE** capabilities at BN & BCT levels Joint, Coalition Integration √ Robust suite of capabilities including Intercross domain solutions Operability BQ BQ BQ √ Seamless integration within Joint/SOF ✓ Proven doctrine, refined TTP, mature equipment **Inter-Agency Integration Mobile TAC CP** Command √ Mobile, scalable CPs with efficient **Posts** Develop / Validate Mobile, Scalable, Efficient, & Survivable Main CP energy **Execute Division Training Exercises / CJTF Validation** √ Validated Division JTEs **Training** ✓ Developed & implemented Home-**Develop / Validate Home-Station Training Capability** station Capability Set (CS) training Accelerated & Increased expeditionary capabilities of BCTs through technological innovations ✓ Drives change in the Army; BCT Innovative

Force 2025 S&T, live experimentation; linkages to DARPA, JIEDDO, REF & AWG



## Transition to Force 2025 Maneuvers





Continue to meet current contractual and legal NIE obligations

- Interoperability with Unified Action and Coalition Partners
- Force Entry Mission Command (Ground)
- Fires Net-Centric Messaging Requirements
- Condition Based Maintenance
- Air Ground Network Architecture

- Operational Energy Onboard Exportable Power
- Adaptive Exchange of Data Among NetOps Mgmt Systems
- Electromagnetic Spectrum Operations
- Extend WIN-T Infrastructure to Support Disadvantaged Users
- BDE/BN Command Post Mobility and Scalability
- Integrated Network Access Control

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